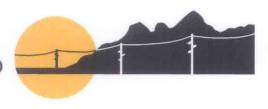
## MONTANA ALBERTA TIE LTD



July 31, 2006

Ms. Ellen Russell Senior Project Manager U.S. Department of Energy 1000 Independence Ave. SW Room 6H-050 Washington, DC 20585 U.S.A. **US Department of Energy** 

AUG 1 2006

Electricity, Delivery and Energy Reliability

Dear Ms. Russell:

Subject: MATL Technical Scope Change #1

Attached is MATL's Scope Change #1,that summarizes all of the technical and system changes that have been made since the start of the project. The most significant changes can be summarized as follows:

- 1. Mid point substation moved from Glacier Electric Cooperative's Cut Bank substation to McCormick Ranch, now referred to as the Marias substation.
- 2. Conductor changed from 1033 Curlew to 1590 Falcon.
- Structure material changed from steel to laminated wood or round wood. Please note that steel structures may still be used for special applications such as monopole deadend structures.
- 4. Series compensation to be added to both line segments at the Marias substation.

If you have any questions or comments about the attached scope change document, please do not hesitate to contact me at 403-264-4465 or my email bob.williams@matl.ca.

Respectfully,

Bob Williams

Vice President, Regulatory

Enclosure (1)

cc: John Railton - MATL

Laura Dunphy - MATL Mark Abraham - MATL

best L. Williams

Dave Jacobson - AMEC

Pat Mullen - AMEC



Great Falls, Montana to Lethbridge, Alberta Interconnection Project

# Notification Scope Change #1

May 26, 2006

	Name	Signature	Date
Prepared	Mark Abraham	mille	May 26 2006
Project Manager	Marc Clark	MECH	26 MAY 2006
Approved	Lorry Wilson	X.a. W. Jan	May 26 2006

### MATL PROJECT SCOPE CHANGE #1

#### INTRODUCTION

The scope of the MATL transmission line project has been altered somewhat following the Open Season and the subsequent initiation of the regulatory applications exercise in May of 2005. The fundamental objective of the project, to build a 300MW/230 KV transmission line linking Great Falls, Montana and Lethbridge, Alberta remains unchanged, but a number of modifications have been made to the design to meet regulatory, environmental, land and commercial constraints.

#### SCOPE CHANGES

The following tables summarize the scope changes that have been made to this project since May 2005. Attached is a single line diagram and route map for reference.

### 1. Project System Changes

Item	Original	Revision
Path Rating	300MW both directions	No change
Emergency Rating	320MW	370MW
AESO Lethbridge 240kV Intertie	300MW	No change
Glacier Electric 115kV Connection	50MW	No connection
Great Plains Wind Energy - McCormick Ranch	T connection	Direct connection into mid-point substation
NorthWestern Great Falls 230kV Intertie	300MVV	No Change

## 2. Transmission Line Routing and Substation Location Changes

tem	Original	Revision	
Lethbridge interconnection point	Tie into North Lethbridge 370S Substation	A new green field substation will be constructed approximately 10 km north east of 370S. The new substation's name is "MATL 120S". The existing transmission line 923L will be built in and out of 120S	
Mid Point Substation	Tie into Glacier Electric 115kV system near Cut Bank	A new mid-point substation is to be built next to the Great Plains Wind Energy McCormick Ranch wind gathering station approximately 10 miles south of Cut Bank. This substation is to be named the "Marias Substation".	
Great Falls Interconnection	Tie into NorthWestern Energy 230kV substation	No change	
Transmission Route	Estimated length 300km.	Estimated Length 327km. The route is subject to change as a result of regulatory and right-of-way constraints.	

# 3. Transmission Line Design Changes

Item	Original	Revision
Conductor	1033 kcmil Curlew, single conductor per phase	1590 kcmil Falcon, single conductor per phase
Structures	Steel pole     H frame and monopole	Laminated wood or round wood pole     No change: H-frame and monopole
Insulators	Not specified	Synthetic
Communication	Not specified	<ul> <li>36 fiber OPGW over the full length of the tie line</li> <li>Additional 3/8" shield wire on H frame structures</li> </ul>

## 4. Substation Design Changes

Item	Original	Revision
Lethbridge	330MVA Phase Shifting Transformer (PST)     One 50MVAr shunt capacitor	No change to PST     Two banks of 50MVAr shunt capacitors
Mid-Point Substation	<ul> <li>Line segmentation breaker</li> <li>1 x 50MVar and 1 x 100MVar shunt capacitor</li> </ul>	<ul> <li>No change to line segmentation</li> <li>4 x 40MVAr shunt capacitors</li> <li>60% series capacitance on the north segment of transmission line</li> <li>50% series capacitance on the south segment of the transmission line</li> </ul>
Great Falls	Expansion of existing 230kV system	No change

#### SUPPORTING DOCUMENTS

The attached drawings include changes.

- 1) MATL System Single Line Diagram (MATL1-ELEC-SYS-SLD-002-R1)
- 2) MATL Route Map Over view (MATL1-MAP-REG-OVERVIEW-2006-05-26)

